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PERKINS COIE LLP			DANG, THANH HA T	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/719,002

Applicant(s)

SPIVACK ET AL.

Examiner

Thanh-Ha Dang

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 13-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1, 3-9 and 13-34 are rejected in this Office Action.
2. Applicant cancelled Claims 2 and 10-12.

### ***Continued Examination Under 37 CFR 1.114***

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/12/07 has been entered.

### ***Response to Amendment***

4. Receipt of Applicant's Amendment filed on 11/12/07 is acknowledged.

### ***Claim Objections***

5. Claims 3 and 13 are objected to because of the following informalities:
  - The preamble of Claim 3 has many non-needed comma punctuation mark.
  - Claim 13 depends on a cancelled claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 29 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 29 recites the "semantic object data structure comprising: a set of tag fields ...; a set of metadata fields ..." that are just a mere arrangement of data, and is at best directed to non-functional descriptive material. Although the data structure is stored on a computer readable medium, it is similar to data on a disk, and therefore is directed to non-statutory subject matter. Claims 30-34 are dependent of Claim 29, and therefore are also rejected.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-9 and 13-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No. US2002/0147748 issued to Huang et al. ("Huang"), and further in view of US Patent No. 7,384,196 issued to Skeen et al. ("Skeen").

As to **Claim 1**, *Huang teaches* a method of semantically representing a target, the method comprising:

- representing a set of attributes of the target with a set of meta-tags (*Figures 6A-C*), wherein a type of the target is one of a physical entity, a software entity, and an intangible entity (*Figure 5A, page 2 [0029, wherein XML/DTD/Schema Editor is equivalent to a software entity]*);
- representing at least one of the set of attributes (*Figures 2A*) with metadata associable with at least one of the set of meta-tags (*Figures 2B and 6A-B, page 2 [0034-0035]; and page 5 [0070]*);
- wherein the target is identifiable via one or more of the at least one of the meta-tags and the metadata associated with the target (*Figures 7A-B and 9, page 6 [0073-0074]*).
- *Huang does not explicitly teach* wherein one or more of the metadata and the at least one of the meta-tags are definable with an ontology. However,

*Skeen teaches wherein one or more of the metadata and the at least one of the meta-tags are definable with an ontology (Figures 3-4, column 11 lines 30-32; and Figures 10-13 illustrating metadata and meta-tags defined with an ontology). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for extensible stylesheet design using meta-tag of Huang to provide method and system which incorporate meta-data and meta-tag to define and access concept within ontology.*

As to **Claim 3**, *Huang in combination with Skeen teaches further comprising, a method for, documenting information, the method comprising:*

- *creating the semantic object that is configured to represent resource information or tacit information, the semantic object comprising tags for identifying semantic information, and rules regarding at least one of: how the semantic object (i) interacts with, (ii) is manipulated by, and (iii) is displayed to human beings and automated processes (Skeen, Figures 3-4, column 11, lines 25-67);*
- *seeking to detect an information resource containing information that can be represented by the semantic object (Huang, page 1 [0015, wherein search for the meta-tag read on seeking to detect an information resource limitation, wherein the XSL for the target file read on the semantic object limitation); and*

- if the information resource is found, linking the semantic object to the information resource such that the semantic object represents the information resource, wherein the semantic object is also configured to have a link to or from any number of other semantic objects (*Huang, page 6 [0083]*).

As to **Claim 4**, *Huang in combination with Skeen teaches* wherein the information resource is found, the method further comprising providing the semantic object with meta data about the information resource (*Huang, Figure 9, page 7 [0088], [0090], and [0091]*).

As to **Claim 5**, *Huang in combination with Skeen teaches* wherein the information resource is not found, and wherein the semantic object represents the tacit information (*Huang, Figure 9 block 908, 912, page 7 [0089]*).

As to **Claim 6**, *Huang in combination with Skeen teaches* wherein the semantic object is created before seeking to detect the information resource (*Huang, Figure 7A, page 6 [0073]*).

As to **Claim 7**, *Huang in combination with Skeen teaches* wherein the information resource is detected before creating the semantic object (*Huang, Figure 7A, page 6 [0073]*).

As to **Claim 8**, *Huang in combination with Skeen teaches* wherein the information resource is detected upon the information resource being published (*Huang, Figure 7B, page 6 [0074 wherein identifying step 716 read on information resource detected limitation]*).

As to **Claim 9**, *Huang in combination with Skeen teaches* wherein any entity that publishes the information resource triggers the creation of the semantic object (*Huang, page 7 [0086]*).

As to **Claim 13**, *Huang in combination with Skeen teaches* further comprising linking the semantic object to at least one of the other semantic object in the library (*Huang, page 1 [0014, lines 7-10]*).

As to **Claim 14**, *Huang in combination with Skeen teaches* wherein the physical entity comprises, one or more of, a living organism, a person, a place, an organization, a corporation, an object, a physical item, a processor, a machine, a natural entity, and an artificial entity (*Skeen, Figure 15 wherein a purchase order is equivalent to an object, column 11, lines 49-52*).

As to **Claim 15**, *Huang in combination with Skeen teaches* wherein the software entity comprises, one or more of, a document, an email, an address book entry, a message, an instant message, a query, a discussion thread, a posting, an XML message, a file, a directory, multimedia content, a website, a web-page, a blog, and a data record (*Huang, Figure 5C, page 2 [0031] wherein xml file read on file limitation*).

As to **Claim 16**, *Huang in combination with Skeen teaches* wherein the intangible entity comprises, one or more of, a relationship, an interaction, a link, a semantic relationship, a keyword relationship, a personal relationship, a connection, a transaction, an event, a type of activity, knowledge, content, an idea, and a concept (*Skeen, column 11, lines 25-26*).



As to **Claim 17**, *Huang in combination with Skeen teaches* wherein the set of meta-tags are associated with a semantic representation of the target (*Huang, page 6 [0076]*).

As to **Claim 18**, *Huang in combination with Skeen teaches* wherein the set of meta-tags are determined based on the type of the target (*Huang, page 6 [0076]*).

As to **Claim 19**, *Huang in combination with Skeen teaches* wherein the set of attributes of the target comprises, rules regarding one or more of, interaction with the target, manipulation of the target, and presentation of the target (*Huang, page 6 [0083]*).

As to **Claim 20**, *Huang in combination with Skeen teaches* wherein the semantic representation is one or more of, machine-readable and human-readable (*Skeen, Figures 3-5, column 5, lines 9-14 and Figure 12, column 14, lines 53-54*).

As to **Claim 21**, *Huang in combination with Skeen teaches* wherein the metadata is user-specifiable (*Skeen, Figures 13-14, column 14, lines 58-61*).

As to **Claim 22**, *Huang in combination with Skeen teaches* wherein the metadata is retrievable on-demand (*Huang, page 5 [0063 wherein obtaining the meta-tag information read on retrieving metadata on-demand]*).

As to **Claim 23**, *Huang in combination with Skeen teaches* wherein the metadata is machine-specifiable (*Skeen, column 14, lines 10-16 and 55-56*).

*wherein machine processible and automated fashion read on machine-specifiable limitation).*

As to **Claim 24**, *Huang in combination with Skeen teaches wherein the metadata is modifiable (Huang, page 5 [0067]).*

As to **Claim 25**, *Huang in combination with Skeen teaches wherein the metadata represents one or more of, a link to second target having a first identified relationship matching one of a predetermined set of relationships and a link from a third target having a second identified relationship matching one of the predetermined set of relationships (Skeen, column 16, lines 41-50).*

As to **Claim 26**, *Huang in combination with Skeen teaches wherein one or more of the first identified relationship and the second identified relationship is detected from a user triggered event (Skeen, column 26, lines 10-13).*

As to **Claim 27**, *Huang in combination with Skeen teaches wherein one or more of the first identified relationship and the second identified relationship is user-specified (Huang, page 4 [0056, lines 10-15]).*

As to **Claim 28**, *Huang in combination with Skeen teaches wherein the metadata provides data about the structure of the semantic representation (Skeen, Figure 17, column 5, lines 33-34).*

As to **Claim 29**, *Huang teaches a computer-readable medium having stored thereon a data structure representing a semantic object having a plurality of fields, the semantic object data structure comprising:*

- a set of tag fields of the plurality of fields determined by a type of the semantic object (*Figures 2B*), the set of tag fields representing a set of attributes associated with the semantic object (*Figure 3A-B, wherein the XSL file is equivalent to the semantic object, page 2 [0023]*);
- a set of metadata fields of the plurality of fields associated with the first set of tag fields, wherein a value of a metadata entry of the set of metadata fields specifies a particular attribute of the set of attributes (*Figures 2B*) of the semantic object (*Figures 5B-C, page 4 [0058-0059]*); and
- *Huang does not explicitly teach* wherein the value of the metadata entry is one or more of, user-specifiable and machine-definable. However, *Skeen teaches* wherein the value of the metadata entry is one or more of, user-specifiable (*Figures 15 and 19 wherein the value of the metadata entry is user-specifiable, column 14, lines 58-59*) and machine-definable (*Figures 10-11, column 14, lines 10-16 wherein machine processible definition read on machine-definable limitation*). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine syntax based data transformation teaching of Skeen with method for extensible stylesheet design using meta-tag of Huang to provide method and system which incorporate meta-data and meta-tag to define and access semantic object.

As to **Claim 30**, *Huang in combination with Skeen teaches* further comprising, an identifier field of the plurality of fields to uniquely identify the

semantic object (*Skeen, Figures 3-5, column 3, lines 64-65; and column 12, line 26-27*).

As to **Claim 31**, *Huang in combination with Skeen teaches* wherein, the metadata entry of the set of metadata fields represents a pre-determined relationship of the semantic object to another semantic object (*Skeen, Figure 23, column 24, lines 47-48*).

As to **Claim 32**, *Huang in combination with Skeen teaches* wherein, the set of attribute associated with the semantic object comprise, one or more of, an access permission attribute, a display attribute, intellectual content attribute, of the semantic object (*Huang, Figure 3C in conjunction with Figure 5A-B displays intellectual content attribute*).

As to **Claim 33**, *Huang in combination with Skeen teaches* wherein, a tag entry of the set of tag fields is definable in an ontology (*Skeen, Figures 3-4 in conjunction with Figures 11 and 13, column 11, lines 30-32*).

As to **Claim 34**, *Huang in combination with Skeen teaches* wherein, the value of the metadata entry of the set of tag fields is definable in the ontology (*Skeen, Figures 3-4 in conjunction with Figures 13-14, column 11, lines 25-32*).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3-9 and 13-34 have been considered but are moot in view of the new ground(s) of rejection.

***Citation of Pertinent Prior Art***

9. The prior art made of record and not relied upon in form PTO-892 if any is considered pertinent to applicant's disclosure.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THANH-HA DANG whose telephone number is (571)272-4033. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thanh-Ha Dang  
Examiner, AU 2163

February 15, 2008

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